

AMENDMENTS TO THE CLAIMS

LISTING OF CLAIMS

Claims 1-51 (canceled)

52. (currently amended) A semiconductor component comprising:

a substrate comprising a plurality of semiconductor components, each component including a plurality of component contacts and a plurality of integrated circuits in electrical communication with the component contacts, the components including a plurality of good components and at least one defective component identified during a component testing process in which digital data represents locations of the good components, the defective component and the component contacts; and

~~a metal layer on the substrate comprising~~ a plurality of ~~separate patterns of~~ conductors on the components in electrical communication with the component contacts configured to redistribute the component contacts on ~~each~~ the good components and to repair the defective component by connecting selected component contacts on the defective component with selected integrated circuits on the defective component, the conductors having a pattern corresponding to the digital data.

~~, the separate patterns of conductors containing information from the component testing process for repairing the defective component.~~

53. (previously presented) The component of claim 52 wherein the components include a second defective component and the conductors are configured to electrically isolate the second defective component.

54. (previously presented) The component of claim 52 wherein the components include a second defective component and the conductors are configured to reconfigure the component contacts on the second defective component.

55. (previously presented) The component of claim 52 wherein the components include a second defective component and the conductors are configured to electrically connect multiple components in a cluster that excludes the second defective component.

56. (currently amended) A semiconductor component comprising:

a substrate comprising a plurality of components including ~~, each component comprising~~ a plurality of component contacts;

the components including a plurality of good components and at least one defective component identified during a component testing process in which digital data represents locations of the good components, the defective component and the component contacts;

~~a metal layer on the substrate comprising~~ a plurality of ~~separate patterns of~~ conductors on the components configured to redistribute the component contacts on ~~each~~ the good components and to electrically isolate the component contacts on the defective component, the conductors having a pattern corresponding to the digital data.

~~on the substrate during burn-in testing of the good components, the separate patterns of conductors containing information from the component testing process for electrically isolating the defective component.~~

57. (previously presented) The component of claim 56 further comprising a plurality of terminal contacts on the good components in electrical communication with the

conductors and the component contacts on the good components.

58. (previously presented) The component of claim 56 wherein the conductors are configured to electrically connect a plurality of good components in a cluster that excludes the defective component.

59. (previously presented) The component of claim 56 wherein the substrate comprises a semiconductor wafer, and the components comprise semiconductor dice or semiconductor packages.

60. (currently amended) A semiconductor component comprising:

a substrate comprising a plurality of semiconductor components, each component comprising a plurality of integrated circuits and a plurality of component contacts in electrical communication with the integrated circuits, the components including a plurality of good components and at least one defective component identified during a component testing process in which digital data represents locations of the good components, the defective component and the component contacts; and

~~a metal layer on the substrate comprising a plurality of separate patterns of conductors on the components having a pattern corresponding to the digital data, the conductors configured to redistribute the component contacts on each the good components and to reconfigure the component contacts on the defective component.~~

~~the separate patterns of conductors containing information from the component testing process for reconfiguring the component contacts on the defective component.~~

61. (currently amended) The component of claim 60 further comprising a plurality of terminal contacts on the good components in electrical communication with the conductors and the component contacts on the good components.

62. (previously presented) The component of claim 60 wherein the substrate comprises a semiconductor wafer or portion thereof and the components comprise dice or packages.

Claims 63-69 (Canceled)

70. (currently amended) A semiconductor component comprising:

a substrate comprising a plurality of semiconductor components including a plurality of good components and at least one defective component identified during a component testing process, each component comprising a plurality of component contacts and a plurality of integrated circuits in electrical communication with the component contacts, the testing process configured to generate digital data representing locations of the good components, the defective component and the component contacts;

~~a plurality of terminal contacts on the components;~~

a metal redistribution layer on the substrate comprising a plurality of ~~separate patterns of~~ conductors having a pattern corresponding to the digital data, the conductors configured to electrically connect redistribute the component contacts ~~and the terminal contacts on each~~ on the good components, and to either repair, reconfigure, or electrically isolate the defective component, or to electrically connect multiple good components in a cluster that excludes the defective component.

~~the separate patterns of conductors containing information from the component testing process for connecting the multiple components and excluding the defective component.~~

71. (currently amended) The component of claim 70 wherein the good components include a plurality of terminal contacts in electrical communication with the component contacts on the good components.

~~comprise balls or bumps in a plurality of separate grid arrays.~~

72. (currently amended) The component of claim 70 wherein the component contacts comprise bond pads.

73. (currently amended) The component of claim 70 wherein the conductors on the good components have a fan out configuration.

74. (previously presented) The component of claim 70 wherein the substrate comprises a semiconductor wafer.

75. (currently amended) The component of claim 70 further comprising a protective layer on the conductors on the good components.

~~having a plurality of openings for the terminal contacts.~~

76. (previously presented) The component of claim 70 wherein the components comprise semiconductor packages or dice.

77. (previously presented) The component of claim 70 wherein the components include a second defective component and the conductors are configured to repair, reconfigure or electrically isolate the second defective component.